UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	**Applicant(s)**
	10/629,474	SMATHERS, KEVIN
Office Action Summary	**Examiner**	**Art Unit**	
	Robert W. Wilson	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 July 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-30</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>9/15/03</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 11-15 are rejected under 35 U.S.C. 102(E) as being anticipated by Choi (U.S.

Patent Pub. No.: US2003/0227930).

Referring to claim 11, Choi teaches a processor-implemented method ((Fig 2 performs the method)

Initiating a data connection between a first processor arrangement and a second processor arrangement that are coupled via a network (a data connection is initiated by sending the frame shown in Fig 8 (1) from the first inherent processor arrangement on the local network shown to 2nd processor arrangement which is inherently on the Internet which is coupled via the local network)

Choosing a selected transport identifier for the first processor arrangement the selected transport identifier identifying the data connection between the first and second processor arrangement (A local source port of 0x100c or transport identifier was selected per Fig 8 (1) & (2) respectively) the selected transport identifier identifying the data connection between the first and second processor arrangement (The local source port of 0x100c or transport identifier per Fig 8 (1) & (2) identifies the data connection between the first and second processor arrangement.)

Searching a collection of unique identifier for a match to the selected transport identifier wherein each unique identifier include a transport identifier and network a identifier and is associated with an existing data connect of the first processor arrangement (The applicant broadly claims unique identifier. The examiner interprets a unique identifier as a combination of IP address and TCP port numbers which are not local but uniquely known and used on the Internet. The reference teaches that IP address and the source address are searched through a table which determined that a source port address is a local address and therefore does not uniquely match the internet source port per Fig 8)

If no unique identifier of the connection has a transport identifier that matches the selected transport identifier and a network identifier that matches the network identifier of the transport identifier that matches the selected transport identifier and a network identifier that matches a network identifier the second processor arrangement then allocating a transport identifier to the data connection forming a new unique identifier form the selected transport identifier and a network identifier of the second processor arrangement and adding the new unique identifier to the connection (The reference teaches that IP address and the source address are searched through a table which determined that a source port address is a local address and therefore does not uniquely match the internet source port per Fig 8. The source port or transport identifier changed to a new transport identifier 0x2000 per Fig 8 (3) (4) which now is a unique internet identifier and the source port identifier is now added to the packet)

In Addition Choi teaches:

Regarding claim 12, wherein the data connection comprises a transmission control protocol (TCP) connection (IP addresses are inherently a part of TCP per Fig 8)

Regarding claim 13, wherein the selected transport identifier comprises a TCP port (SRC port is a TCP port per Fig 8)

Regarding claim 14, wherein the network identifier of the remote computing device comprises a range of TCP sequence number of the data connections (The IP addresses are network identifier which inherently comprise of a range of sequence number because they are Internet class addresses and they are used to define the data connection)

Regarding claim 15, wherein the network identifier comprises an internet protocol address of the second processor (destination IP address per Fig 8 or second processor)

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-3, 5, & 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chang (U.S. Patent No.: 6,338,078) in view of Attanasio (U.S. Patent No.: 5,371,852)

Referring to claim 1, Chang teaches a processor-implemented method (The server and clients per Fig 2 have processors or CPU per Fig 1 which perform the method) comprising:

forming a plurality of data connections between an associated plurality of processor arrangements and a first processor arrangement that a are coupled via a network each data connection having a network identifier (A plurality of sockets or data connections are shown to a plurality of applications per Fig 2 which are running on a CPU in a server or first processor arrangement which is shown in Fig 1 and where the CPU is coupled over Network 1 via a socket or data connection per Fig 2. Each data connection having a Destination IP address per Fig 4 or network identifier. The clients and router shown in Figure 2 are the plurality of processor arrangement)

associating respective dynamic transport identifier of the first processor arrangement with a plurality of data connections (The Destination address or transport identifier associated with a plurality of data connections per Fig 4)

Chang does not expressly call for: permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier.

Attanasio teaches: permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections (TCP port can be used for multiple or duplication connection per col. 10 lines 40 to 67) and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier (The destination for received data can be resolved by the processor using the same or two or more data connections based upon TCP port or dynamic transport identifier as long as the connection is unique ie as as long at a it is performed in connection with a unique IP destination address per col. 10 lines 40 to 67)

It would have been obvious one of ordinary skill in the art at the time of the invention to add the duplicate dynamic transport identifier processing of Attanasio to the socket processing of Chang in order to build a system which can reuse TCP ports without every running out of TCP port numbers.

Referring to claim 5, the combination of Chang and Attanasio teach the method of claim 1

Chang does not expressly call for: wherein permitting associating of duplicate dynamic transport identifier for the two or more data connections comprises determining that the respective internet protocol address of the two or more data connections are different.

Attanasio teaches: wherein permitting associating of duplicate dynamic transport identifier for the two or more data connections comprises determining that the respective internet protocol address of the two or more data connections are different col. 10 line 40 to 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add wherein permitting associating of duplicate dynamic transport identifier for the two or more data connections comprises determining that the respective internet protocol address of the two or more data connections are different of Attanasio to the assignment of a port number and internet address of the combination of Chang and Attanasio in order to build a system which can reuse TCP ports without every running out of TCP port numbers.

In addition Chang teaches:

Regarding claim 2, wherein the data connection comprise transmission control protocol (TCP) connections (TCP sockets per Fig 2 or TCP connections)

Regarding claim 3, wherein the dynamic transport identifier comprise TCP ports (TCP port Number per Fig 4)

Referring to claim 16, Chang teaches : an apparatus (combination of 40, 42, 44, 44, 46, 48, 50, 52, 54, & 56 per Fig 2) comprising:

A network interface (34 per Fig 2) for providing respective data connection (sockets per Fig 2) between the apparatus (combination of 40, 42, 44, 44, 46, 48, 50, 52, 54, & 56 per Fig 2) and two or more remote data processing arrangements (Clients or router per Fig 2) coupled (Network1 coupled per Fig 2) to the apparatus (combination of 40, 42, 44, 44, 46, 48, 50, 52, 54, & 56 per Fig 2) via a network (Network 1 per Fig 2) the data connection using a network transport protocol (TCP is used as the network transport protocol associated with sockets or connections)

Processor arranged to associated the dynamic transport identifier with the data connections (CPU per Fig 1 or processor arranged to associated with the defining the port numbers or transport identifier shown per Fig 4)

And resolving the destination for the data received at the network interface based upon transport identifier and network identifier (Fig 2 & 3 respectively)

Chang does not expressly call for: permit association of duplicate dynamic transport identifiers for two or more of the data connections and resolve the destination for the data received based upon both dynamic transport identifier and network identifier .

Attanasio teaches: permit association of duplicate dynamic transport identifiers for two or more of the data connections and resolve the destination for the data received based upon both dynamic transport identifier and network identifier per col. 10 lines 51-63

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the permit association of duplicate dynamic transport identifiers for two or more of the data connections and resolve the destination for the data received based upon both dynamic transport identifier and network identifier of Attanasio to the socket processing of Chang in order to build a system which can reuse TCP ports without every running out of TCP port numbers.

In addition Chang teaches:

Regarding claim 17, wherein the data connection comprise transmission control protocol (TCP) connections (TCP sockets per Fig 2 or TCP connections)

Regarding claim18, wherein the dynamic transport identifier comprise TCP ports (TCP port Number per Fig 4)

5.   Claims 4, 6-10, & 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chang (U.S. Patent No.: 6,338,078) in view of Attanasio (U.S. Patent No.: 5,371,852) further in

view of Bal (U.S. Patent No.: 6,691,168)

Referring to claim 4, the combination of Chang and Attanasio teach the method of claim 2 and Attanasio teaches: wherein permitting association of duplicate dynamic transport identifier for two or more of the data connections col. 10 lien 40 to 67)

The combination of Chang and Attanasio do not expressly call for: comprised determining that respective ranges of TCP sequence number of two or more data connections are different

Bal teaches: comprised determining that respective ranges of TCP sequence number of two or more data connections are different (col. 12 line 41 to col. 123 line 15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the determining that respective ranges of TCP sequence number of two or more data connections are different of Bal to the transport identifier of the combination of Chang and Attanasio in order to build a system which assigns port number or transport identifiers which compliant with Internet standards for clients and servers in order for the system to interoperate with legacy standards compliant systems.

Referring to claim 6, Chang teaches a processor-implemented method (The server and clients per Fig 2 have processors or CPU per Fig 1 which perform the method) comprising:

Initiating a plurality of data connections between an associated plurality of processor arrangements and a first processor arrangement that a are coupled via a network each data connection having a network identifier (A plurality of sockets or data connections shown were previously initiated to a plurality of applications per Fig 2 which are running on a CPU in a server or first processor arrangement which is shown in Fig 1 and where the CPU is coupled over Network 1 via a socket or data connection per Fig 2. Each data connection having a Destination IP address per Fig 4 or network identifier The clients and router shown in Figure 2 are the plurality of processor arrangement)

associating respective dynamic transport identifier of the first processor arrangement with a plurality of data connections (The Destination address or transport identifier associated with a plurality of data connections per Fig 4)

Chang does not expressly call for: selecting the dynamic transport identifier form a set of reserved transport identifier of the first processing arrangement
permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections

and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier.

Attanasio teaches: permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections (TCP port can be used for multiple or duplication connection per col. 10 lines 40 to 67)

and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier (The destination for received data can be resolved by the processor using the same or two or more data connections based upon TCP port or dynamic transport identifier as long as the connection is unique ie as as long at a it is performed in connection with a unique IP destination address per col. 10 lines 40 to 67)

It would have been obvious one of ordinary skill in the art at the time of the invention to add the duplicate dynamic transport identifier processing of Attanasio to the socket processing of Chang in order to build a system which can reuse TCP ports without every running out of TCP port numbers.

The combination of Chang and Attanasio do not expressly call for: selecting the dynamic transport identifier from a set of reserved transport identifier

Bal teaches: selecting the dynamic transport identifier from a set of reserved transport identifier (Range of TCP Port Number depends upon whether the port is on a server or client per col. 12 line 41 to col. 13 line 15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the dynamic transport identifier range of Bal to the transport identifier of the combination of Chang and Attanasio in order to build a system which is standard compliant which will interoperate with legacy system.

In addition Chang teaches:

Regarding claim 7, wherein the data connection comprise transmission control protocol (TCP) connections (TCP sockets per Fig 2 or TCP connections)

Regarding claim 8, wherein the dynamic transport identifier comprise TCP ports (TCP port Number per Fig 4)

Referring to claim 9, the combination of Chang, Attanasio, and Bal teach: the method of claim 7,

The combination of Chang and Attanasio do not expressly call for: wherein the association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different.

Bal teaches: wherein the association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different per col. 12 line 41 to col. 13 line 15

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the wherein the association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different of Bal to the port number or transport identifier of the combination of Chang, Attanasio, and Bal in order to build a system which is standard compliant which will interoperate with legacy system.

Referring to claim 10, the combination of Chang, Attanasio, and Bal teach: the method of claim 6,

The combination of Chang and Bal do not expressly call for: wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different

Attanasio teaches: wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different
Col. 10 lines 51-63

It would have been obvious to one of ordinary skill in the art at the time of the invention to add wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different of Attanasio to the port number or transport identifier of the combination of Chang, Attanasio, and Bal.in order to build a system which is standard compliant which will interoperate with legacy system.

Referring to claim 19, the combination of Chang and Attanasio teach the apparatus of claim17 and Attanasio teaches: wherein permitting association of duplicate dynamic transport identifier for two or more of the data connections col. 10 lien 40 to 67)

The combination of Chang and Attanasio do not expressly call for: comprised determining that respective ranges of TCP sequence number of two or more data connections are different

Bal teaches: comprised determining that respective ranges of TCP sequence number of two or more data connections are different (col. 12 line 41 to col. 123 line 15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the determining that respective ranges of TCP sequence number of two or more data connections are different of Bal to the transport identifier of the combination of Chang and Attanasio in order to build a system which assigns port number or transport identifiers which compliant with Internet standards for clients and servers in order for the system to interoperate with legacy standards compliant systems.

Referring to claim 20, the combination of Chang and Attanasio teach the apparatus of claim 16 and

Chang does not expressly call for: wherein the processor is arranged to permit association of duplicate dynamic transport identifier for two or more of the data connections by determining that respective internet protocol address of the two more data connections are different

Attanasio teaches: wherein the processor is arranged to permit association of duplicate dynamic transport identifier for two or more of the data connections by determining that respective internet protocol address of the two more data connections are different
col. 10 line 40 to 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention wherein the processor is arranged to permit association of duplicate dynamic transport identifier for two

or more of the data connections by determining that respective internet protocol address of the two more data connections are different of Attanasio to the transport identifier and internet address processing of the combination of Chang and Attanasio in order to build a system which assigns port number or transport identifiers which compliant with Internet standards for clients and servers in order for the system to interoperate with legacy standards compliant systems.

Referring to claim 21, Chang teaches computer readable medium configured with instructionsfor causing a processor to perform steps comprising (The server Fig 2 has RAM and ROM which store the instructions and processors or CPU which executed the instructions per Fig 1") comprising:

Initiating a plurality of data connections between an associated plurality of processor arrangements and a first processor arrangement that a are coupled via a network each data connection having a network identifier (A plurality of sockets or data connections shown were previously initiated to a plurality of applications per Fig 2 which are running on a CPU in a server or first processor arrangement which is shown in Fig 1 and where the CPU is coupled over Network 1 via a socket or data connection per Fig 2. Each data connection having a Destination IP address per Fig 4 or network identifier The clients and router shown in Figure 2 are the plurality of processor arrangement)

associating respective dynamic transport identifier of the first processor arrangement with a plurality of data connections (The Destination address or transport identifier associated with a plurality of data connections per Fig 4)

Chang does not expressly call for: selecting the dynamic transport identifier form a set of reserved transport identifier of the first processing arrangement
permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections

and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier.

Attanasio teaches: permitting association of duplicate dynamic transport identifier of the first processor arrangement with two or more of the data connections (TCP port can be used for multiple or duplication connection per col. 10 lines 40 to 67)

and resolving a destination for data received at the first processor arrangement form the two or more data connections based on the associated dynamic transport identifier and network identifier (The destination for received data can be resolved by the processor using the same or two or more data connections based upon TCP port or dynamic transport identifier as long as the connection is unique ie as as long at a it is performed in connection with a unique IP destination address per col. 10 lines 40 to 67)

It would have been obvious one of ordinary skill in the art at the time of the invention to add the duplicate dynamic transport identifier processing of Attanasio to the socket processing of Chang in order to build a system which can reuse TCP ports without every running out of TCP port numbers.

The combination of Chang and Attanasio do not expressly call for: selecting the dynamic transport identifier from a set of reserved transport identifier

Bal teaches: selecting the dynamic transport identifier from a set of reserved transport identifier (Range of TCP Port Number depends upon whether the port is on a server or client per col. 12 line 41 to col. 13 line 15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the dynamic transport identifier range of Bal to the transport identifier of the combination of Chang and Attanasio in order to build a system which is standard compliant which will interoperate with legacy system.

In addition Chang teaches:

Regarding claim 22, wherein the data connection comprise transmission control protocol (TCP) connections (TCP sockets per Fig 2 or TCP connections)

Regarding claim 23, wherein the dynamic transport identifier comprise TCP ports (TCP port Number per Fig 4)

Referring to claim 24, the combination of Chang, Attanasio, and Bal teach: the method of claim 22,

The combination of Chang and Attanasio do not expressly call for: wherein the permitting association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different.

Bal teaches: wherein the permitting association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different per col. 12 line 41 to col. 13 line 15

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the wherein permitting the association of duplicate dynamic transport identifier for two or more of the data connections comprises determining that respective range of TCP sequence of the two or more data connections are different of Bal to the port number or transport identifier of the

combination of Chang, Attanasio, and Bal in order to build a system which is standard compliant which will interoperate with legacy system.

Referring to claim 25, the combination of Chang, Attanasio, and Bal teach: the method of claim 21,

The combination of Chang and Bal do not expressly call for: wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different

Attanasio teaches: wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different
Col. 10 lines 51-63

It would have been obvious to one of ordinary skill in the art at the time of the invention to add wherein permitting association of duplicate dynamic transport identifier for the two or more data connection comprises determining that the respective intern protocol address of the two or more data connections are different of Attanasio to the port number or transport identifier of the combination of Chang, Attanasio, and Bal in order to build a system which is standard compliant which will interoperate with legacy system.

Referring to claim 26, Chang teaches system comprising (The server and clients per Fig 2 or system) comprising:

Network means for providing a plurality of data connections between a first processing arrangement and a plurality of processing arrangements (Network1 per Fig 2 or network means for providing data connections between the server or first processing arrangement and the clients and router shown in Figure 2 or plurality of processing arrangement) wherein each unique identifier includes a network identifier and a transport identifier dynamically allocated of the first processor arrangement (Each socket connection per Fig 2 has a unique TCP port and IP address per Fig 4 which is inherently dynamically allocated for the server or first processor arrangement)

Data storage means for storing respective unique identifier associated with the plurality of data connections wherein each unique identifier includes a network identifier and transport identifier dynamically allocated (The server, client, and router of Figure 2 are represented by the architecture of Fig 1 and RAM and ROM per Fig 1 are the data storage means for storing the TCP port number and TCP addresses per Fig 4)

Processor means for allocating the transport identifier for the first data processing arrangement (The Server per Fig 1 is the first data processing arrangement and the server has a CPU or processor means per Fig 1 for storing port numbers or transport identifier per Fig 4)

Chang does not expressly call for: transport identifier allocated from a set reserved identifier or allocating duplicate transport identifier for two or more of the plurality of data connections if the unique identifier of the two or more data connections include different network identifier

Bal teaches: transport identifier allocated from a set reserved identifier per col. 12 line 41 to col. 13 line 15

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the transport identifier allocated from a set reserved identifier of Bal to the port identifier or transport identifier processing of Chang in order to build a system which is standard compliant that will interoperate with internet legacy systems.

The combination of Chang and Bal do not expressly call for: allocating duplicate transport identifier for two or more of the plurality of data connections if the unique identifier of the two or more data connections include different network identifier

Attanasio teaches: allocating duplicate transport identifier for two or more of the plurality of data connections if the unique identifier of the two or more data connections include different network identifier per col. 10 lines 51 to 63

It would have been obvious to one of ordinary skill in the art at the time of the invention to add allocating duplicate transport identifier for two or more of the plurality of data connections if the unique identifier of the two or more data connections include different network identifier of Attanasio to the processing of port numbers and IP addresses of the combination of Chang and Bal in order to build a system which can reused TCP port numbers and therefore never run out of TCP port numbers.
In addition Chang teaches:

Regarding claim 27, wherein the data connection comprise transmission control protocol/Internet Control protocol (TCP/IP) connections (TCP sockets per Fig 2 or TCP connections)

Regarding claim 28, wherein the dynamic transport identifier comprise TCP ports (TCP port Number per Fig 4)

Regarding claim 29, where the network identifier comprise ranges of TCP sequence number of the data connections (The network identifier comprises a IP address which inherently has a maximum range based upon class addressing associated with the internet and each socket or data connection comprises an IP address)

Regarding claim 30, the network identifier comprise respective IP address of the plurality of processing arrangement (The network identifier comprises the IP address as shown in Fig 4

which is the address of the server, client, and router per Fig 2 or plurality of processing arrangement).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert W Wilson
Examiner
Art Unit 2616

RWW
5/15/07